10. Pedestrians

When there is pedestrian traffic in the area, walkways should be provided. (Figure 24, page 80) The following situations would normally warrant including walkways in the TCP:

- Where sidewalks traverse the work zone,
- Where a designated school route traverses the work zone,
- Where significant pedestrian activity or evidence of such activity exists (i.e., a worn path), and
- Where existing land use generates pedestrian activity.

The following principles should be considered in designing or constructing pedestrian facilities:

- Pedestrian and vehicles should be physically separated (i.e., by barrier, barricade, or similar items). See Figure 24, page 80.
- Pedestrian walkways should be maintained free of any obstructions and hazards such as holes, debris, mud, construction equipment, stored materials, etc.
- Temporary lighting should be considered by all walkways that are used at night, particularly if adjacent walkways are lighted.
- Walkways should be at least 4 or 5 feet wide, and should be wider in areas of high pedestrian activity.
- All hazards (ditches, trenches, excavations, etc.) near or adjacent to walkways should be clearly delineated.
- Walkways under or adjacent to elevated work activities such as bridges or retaining walls may require covered walkways.

- Where safe pedestrian passage cannot be provided, pedestrians should be directed to the other side of the street by appropriate traffic control devices. See Figure 24, page 80.

- Signs and traffic control devices should not be a hazard to pedestrians.

- Signs located near or adjacent to a sidewalk should have a 7-foot clearance.

- Where construction activities involve sidewalks on both sides of the street efforts should be made to stage the work so that both sidewalks are not out of service at the same time.

- In the event that sidewalks on both sides of the street are closed, pedestrians should be guided around the construction site.

- Reflectorized traffic control devices are of little value to pedestrians. Warning lights should be used to delineate the pedestrians pathway and to mark hazards as appropriate.

11. Bicycles

Bicycles also need protection and access to the roadway. If a bicycle path is closed because of the work being done, an alternate route should be provided and signed if appropriate. Bicycles should not be directed into the same path being used by pedestrians.

12. Interchanges

On limited access highways, with interchange ramps, access to these ramps should be maintained even if the work area is in the lane adjacent to the ramps. If access is not possible the ramp may be closed by using signs and Type III barricades. Early coordination with officials having jurisdiction over the affected cross streets is needed prior to ramp closures.

The access to the exit ramp should be clearly marked and outlined with channelizing devices. For long-term projects, old markings should be removed and new markings placed. As the work area changes, the access area may be changed.

13. Intersections

Use advance warning signs, devices, and markings as appropriate on all cross streets. The effect of the work upon signal operation should be considered such as signal phasing for adequate capacity and for maintaining or adjusting detectors in the pavement.

14. Detours

Detour signing is usually handled by the traffic engineer with authority over the roadway because it is considered a traffic routing problem. Detour signs are used to direct traffic onto another roadway. When the detour is long, signs should be installed to periodically remind and reassure drivers that they are still on a detour. This is done by using the Detour Marker or Detour signs.

When an entire roadway is closed, a detour should be provided and traffic should be warned of the closure in advance. If local traffic is allowed to use the roadway up to the closure, the ROAD CLOSED TO THRU TRAFFIC sign should be used. The portion of the road open to local traffic should have adequate signing, marking, and protection.

Detours should be signed so that traffic will be able to get through the entire area and back to the original roadway.

15. Portable Concrete Barrier

Figure 12, page 65, illustrates the use of a portable concrete barrier around a work area which also includes a lane closure. When determined necessary by an engineering analysis, barriers should be used for added safety. There are four primary functions of barriers:

- Keep traffic from entering work areas, such as excavations or material storage sites;
- Provide positive protection for workers;
- Separate two-way traffic; and
- Protect construction such as false work for bridges and other exposed objects.